

1. A process for calibrating an electronic sign comprising the steps of:

- a. using an imaging device to take an image of an electronic sign; and,
- b. using that image to determine the control values needed to bring the sign into uniformity.

5

02-05-2001 1:00 PM

2. A process of an imaging system to capture a detailed image of an electronic display comprising the steps of:

- a. at least one image to contain enough detail and resolution that each pixel can be identified and their individual luminance value can be determined for each color;
- b. once the individual luminance of each pixel is determined, this value can be inputted into an algorithm, which will determine the correct amount of adjustment necessary to increase or decrease the luminance of the pixel;
- c. using a properly programmed personal computer, the determination of luminance values; and,
- d. resulting adjustment values can be automated into said electronic display.

3. The process of claim 2, wherein said algorithm comprises:

a.

5 
$$nChange = \frac{(fExpectedValue - fPixelValue)}{(fExpectedValue)} * \frac{1.0}{fPercentChangePerCalValue}$$

and;

10 b. nChange - the amount the calibration control value should change for this color on this pixel; this is the output of the formula;

15 c. fExpectedValue - the value this color on all pixels is to be adjusted to; this value is either user supplied or the average value of the image data from the camera;

d. fPixelValue - the current pixel value for this color; this value is calculated from the camera image data from as stated above; and,

20 e. fPercentChangePerCalValue - the factor which converts a percentage change needed to a calibration control value; this value is sign dependent and is entered as a user supplied parameter.